

Notes on recent and fossil Neritidae

1. Notes on *Nerita olivaria* and *Nerita junghuhni*

by

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Since the description of *Nerita olivaria* by Le Guillou (1841: 344) hardly anything has been published about its identity and distribution. In the well-known monographs of Reeve (1855), Sowerby (1883), and Tyron (1888) the species is not mentioned, while Von Martens (1889) has only guessed as to its identity.

During a short stay at the Muséum d'Histoire Naturelle in Geneva¹ in 1968, one of the syntypes of *N. olivaria* was discovered to be present in the collection of Recluz. This specimen shows that *N. olivaria* is a senior synonym of *Nerita junghuhni* Schepman, 1901. As *N. junghuhni* is also a little known species, we think it useful to give more information.

Nerita olivaria Le Guillou, 1841 (figs. 1-4)

Nerita olivaria Le Guillou, 1841: 344 — Mindanao; Recluz, 1850: 282 — "Wavao, I. d. Amis" (doubtful); Adams, 1853: 379; Paetel, 1888: 514 — refers to Recluz; Von Martens, 1889: 119 — refers to Le Guillou and Recluz; Hidalgo, 1904-1905: 222 — refers to Le Guillou.

Nerita junghuhni Schepman, 1901: 63 — Java, Celebes, Moluccas, "Timor: Larantoeka"², Indian Ocean; Horst & Schepman, 1908: 413 — refers to Schepman in part.

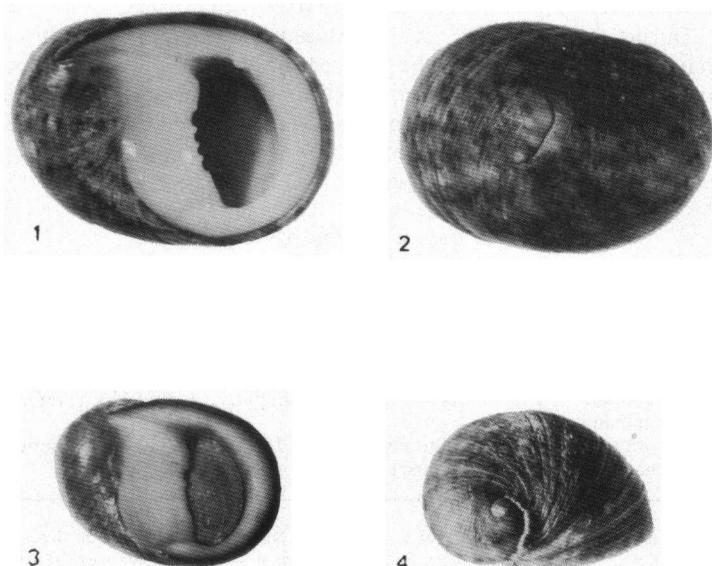
Nerita picea Adam & Leloup nec Recluz, 1938: 55 — Ternate, between Ternate and Triton (sic), in part.

1 Abbreviations: Institut Royal des Sciences Naturelles de Belgique, Brussels — IRSN; Muséum d'Histoire Naturelle, Geneva — MNHG; Natuurhistorisch Museum, Enschede — NME; Rijksmuseum van Natuurlijke Historie, Leiden — RNHL; Zoölogisch Museum, Amsterdam — ZMA; H.K. Mienis collection — HM.

2 Larantoeka is situated on E. Flores, but comes under the administrative unit of Timor and Dependencies.

Shell ovate-globose, with nearly smooth, rounded whorls. Apical whorls often with very faint spiral grooves. Axial sculpture absent. Spire depressed, top often more or less eroded. Suture distinctly descending in front. Aperture small, bluish white; outer lip with about 15 teeth, of which the second is the largest. Columellar area concave, smooth and highly polished. This polished area merges into the dull dorsal side of the shell. Columellar margin slightly excavated in the middle, where it shows two to three (according to Le Guillou, 1841: 344, even four) small teeth of about the same size. Almost every shell shows black and white spotted spiral rows on a greyish background, while the number of rows varies from two to more than ten.

Opercum pink, with a longitudinal groove, dividing the external surface into two parts (fig. 5). Both parts are finely granular. Internal surface smooth, somewhat darker pink but whitish near the nucleus, the margin and the apophysis.



Figs. 1-4. *Nerita olivaria* Le Guillou. 1-2, Philippines, Mindanao, leg. Le Guillou (MHNG no. 1108/8, lectotype), height 14.2 mm, width 14.8 mm; 3-4, Celebes, Gorontalo (ZMA), height 12.8 mm, width 14.1 mm. Photographs L.R. Hafkamp, ZMA.

TYPE DESIGNATION

Nerita olivaria Le Guillou, 1841. Although the collection of Le Guillou is in the Muséum National d'Histoire Naturelle, Paris, this museum does not possess the syntypes of the species (Miss Testud in litt.). In the Muséum d'Histoire Naturelle, Geneva, we found a specimen in the Recluz collection, which shell was labelled as *Nerita olivacea* Le Guillou, Mindanao (Le Guillou), in spite of the fact that Le Guillou has never described a *N. olivacea*. The characters of the shell and the locality of this specimen agree, however, in every detail with the original diagnosis of *N. olivaria*. Thus we suppose *N. olivacea* Le Guillou to be an error for *N. olivaria* Le Guillou and there is no doubt that it is one of the specimens, which have belonged to the original type series. Since Le Guillou did not indicate a holotype, we now designate this specimen the lectotype of *Nerita olivaria* Le Guillou (figs. 1, 2) (MHNG No. 1108/8). The type locality is Mindanao, Philippines.

Nerita junghuhni Schepman, 1901. Type specimens nor type locality were indicated in the original description. Horst & Schepman (1908: 413) selected the specimens collected by Junghuhn on the coast of Java as type specimens. They failed, however, to designate a lectotype. In the collection of the Rijksmuseum van Natuurlijke Historie, Leiden, we could not find among the syntypes the specimen figured by Schepman (1901: 63). Therefore we designate as lectotype of *Nerita junghuhni* Schepman the largest specimen belonging to the type series collected by Junghuhn on the coast of Java (RNHL No. 45a-1). There are two paralectotypes: RNHL No. 45a-2 and RNHL No. 45a-3. The type locality is Java, Indonesia.

MEASUREMENTS

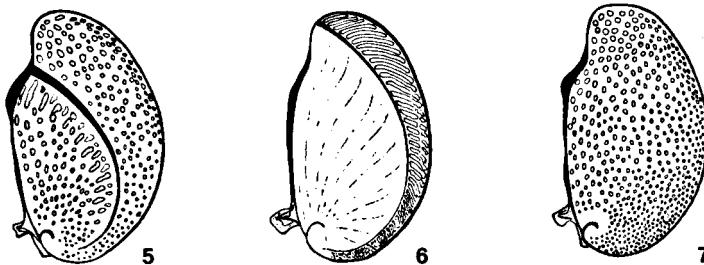
The type material studied has the following measurements in mm:

height	width	height columellar margin	width aperture	
14.2	14.8	7.3	3.9	lectotype <i>N. olivaria</i> MHNG 1108/8
12.8	14.0	7.4	4.0	lectotype <i>N. junghuhni</i> RNHL 45a-1
12.5	12.8	6.9	3.8	paralectotype <i>N. junghuhni</i> RNHL 45a-2
11.4	12.0	6.2	3.3	paralectotype <i>N. junghuhni</i> RNHL 45a-3

REMARKS

Schepman (1901: 64) has mentioned already the affinity in shape and colour of *N. olivaria* to some other Indo-Pacific *Nerita* species. The longitudinal groove on its operculum is, however, almost unique. Only *N. alveolus* Hombron & Jacquinot seems to possess a similar operculum (Von Martens, 1889: pl. A fig. 13). On the other hand the shell of *N. alveolus* has strong spiral ribs and a more elevated spire.

N. olivaria may be easily distinguished from other species in the genus by its operculum. If the shell is not accompanied by its operculum *N. olivaria* can hardly be separated from *umlaasiana* Krauss, a species from SE. Africa.



Figs. 5-7. Opercula of 5, *Nerita olivaria* Le Guillou; 6, *N. polita doreyana* Quoy & Gaimard; 7, *N. incerta* Von dem Busch.

N. incerta Von dem Busch differs from *N. olivaria* in the number of teeth on its columellar margin, which number varies from four to seven in *N. incerta*, by the presence of a heavy callus, which covers a large part of the body whorl, and by the structure of the operculum (fig. 7).

Dark varieties of *N. polita doreyana* Quoy & Gaimard (= *N. polita rumphii* Recluz) differ from *N. olivaria* in axial and spiral sculpture on the body whorl and by the structure of the operculum (fig. 6).

DISTRIBUTION

The following tentative picture of the distribution of *N. olivaria* may be drawn up from literature records and labels.

PHILLIPPINES. Mindanao, leg. Le Guillou (coll. Recluz, MNHG 1108/8: lectotype of *N. olivaria*). INDONESIA. Indian Ocean, leg. S. Müller & H.C. Macklot (coll. Schepman, ZMA, 1); Sangihe I., leg. E.E.W.G. Schröder, 1903 (RNHL 45e, 10, and HM 1767-1770, 4); Celebes, Gorontalo (coll. Schepman, ZMA, 2); Celebes, Lintido, leg. J. Semmelink (coll. van der Sleen, NME, 1); Java, leg. F.W. Junghuhn (RNHL 45a, 3: lectotype and 2 paralectotypes of *N. junghuhni*); Flores, Bay of Endeh, leg. M. Vianney, 1965 (ZMA, 1); Flores, Strait of Larantoeka, leg. J. Semmelink, 1863 (RNHL 45b, 6, and coll. Schepman, ZMA, 4); Wetar I., leg. S. Schädler, 1898 (RNHL, 4); Seroea I., Snellius Expedition, 10.IV. 1930 (RNHL, 7); Haruku I., Snellius Expedition, 3-7.V. 1930 (RNHL, 15); Moluccas, leg. S. Müller (RNHL 45c, 3); Ternate, between Ternate and Tidore, leg. Prince Léopold of Belgium, 17. II. 1929 (IRSN, 2).

The literature record of Recluz (1850: 282): "Wavao, I. d. Amis", is doubtful. He classified *N. olivaria* with the group of nerites characterized by a smooth operculum with a transversely striped band along the margin (fig. 6). As we could not find these specimens in the collection of Recluz in Geneva, it is as yet impossible to solve this problem. So it is better to ignore this record and also that of Paetel (1888: 514), which is probably based on Recluz (1850).

HABITAT

Hardly anything is known about the habitat of *N. olivaria*. The specimens mentioned by Adam & Leloup (1938: 55) were collected on rocks together with *N. argus* Recluz, *N. costata* Gmelin, *N. incerta* Von dem Busch, and *N. insculpta* Recluz. Indeed, in collections we found *N. olivaria* often mixed up with the preceding species.

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